



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/745,738

12/26/2000

Takahiro Ikeda

JAO 32405.01

7969

7590 10/07/2004
OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, VA 22320

EXAMINER

LETT, THOMAS J

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 10/07/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,738

Applicant(s)

IKEDA ET AL.

Examiner

Thomas J. Lett

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 claims "an image reading device comprising", and then proceeds to claim "an image reading device coupled ...". An image reading device is indefinite because the latter image reading device should be distinct from the former image reading device. Clarification is needed.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 claims an original for scanning having a plurality of memory regions. A "plurality of memory regions" is indefinite because it is unclear as to how a sheet of paper or film can have "memory regions", as a memory is a device for storing information. Clarification is needed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2626

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reeber et al (US Patent No. 4,635,108).

Regarding claims ^{1 and 5} ~~1, 5, and 13~~, Reeber et al discloses:

an image reading device (scanner 100) for use with a host apparatus (200) having a monitor screen (display 211), comprising an illuminating device to illuminate the original (col 2, lines 31-36);

an image reading device (100, Fig.1-3; col 2, lines 36-41; col 4, lines 16-23) for converting light from the original and output an image signal;

a moving device (col 2, lines 31-36) to move at least one of the original and the image reading device;

a size data (210) for obtaining the size data of the monitor screen of the host apparatus.

Reeber et al does not specifically teach a data generation device to generate index display image data. However, Reeber teaches the sampling of the scanned output signal as "the number of samples corresponds to the raster scan rate at which signals are displayed by CRT 211.

Reeber et al does not specifically teach the control device setting a reading resolution based on a relationship between a number of frames to be index displayed and the size data of the monitor screen, and to cause the image reading device to execute conversion operation with the set reading resolution. Reeber et al further

Art Unit: 2626

teaches that "The number of lines of information generated as the detector traverses along the width of the original mounted on the drum of optics 101 is determined by the speed of traverse of the detector. The operator adjusts the keyboard of scaling factor input 106 so that the number of lines generated corresponds to the number of raster scan lines of display 211" (col. 3, lines 51-57). In addition, the signal resulting from such scanning would then be viewed on display 211. If the display is acceptable, the original would be in the up position so that exposing unit 105 would be provided with the signals. If the display is unacceptable, the operator controls of computer 103 would be adjusted to correct the problems viewed on the display (col. 4, lines 16-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to consider the sampling device 305 equivalent to the data generation device since it is also for generating information of the scanned image for displaying on the display 211 and for the operator to adjust the keyboard of scaling factor input 106 so that number of lines generated corresponds to the number of raster scan lines of display 211.

Regarding claim 2, Reeber et al discloses the claimed subject matter as discussed in claim 1 above. Reeber et al further teaches that Switch 104 in the down position provides the adjusted signals to sample and hold (S/H) circuits 301, 302, 303 and 304. Four signals corresponding to the four color separations are provided to these sample and hold circuits (col 3, lines 1-5) with a number of display colors that is consistent with the number of display colors of the display 211 (col 3, lines 21-23).

Regarding claims 3, 4, Reeber et al discloses the claimed subject matter as discussed in claims 1 and 2 above. Reeber et al further teach a storage medium (program sampler 305) for storing a control process for an image-reading device.

Regarding claim 6, Reeber et al discloses that the detector traverses the width of the original along the drum as the drum is rotated in a lengthwise direction (col 2, lines 36-37), which reads on the image reading means outputting the image signal by scanning in a main scanning direction, and said moving means moving at least one of the original and the image reading means in a subscanning direction which intersects with the main scanning direction.

Regarding claim 7, Reeber et al discloses a camera 201 which views illuminated film separations and provides signals via line 202 to an analog-to-digital (A/D) converter 203 which converts the signals to corresponding digital signals (col 2, lines 53-57). The adjusted signals are then displayed at a raster scan rate on CRT 211 (col 2, lines 64-65), which reads on the image reading means executes a conversion operation with the set reading resolution.

Regarding claim 9, Reeber et al discloses a plurality of sample and hold circuits 301-304 corresponding to color separations and the number of samples correspond to the raster scan rate at which signals are displayed by CRT 211 (col 3, lines 2-11), which reads on a display color obtaining means for obtaining a number of display colors for the monitor screen of the host apparatus.

Art Unit: 2626

Regarding claim 10, Reeber et al discloses that the number of samples correspond to the raster scan rate at which signals are displayed by CRT 211 (col 3, lines 9-11), which reads on the image reading means executes a conversion operation to the image signal with a number of display colors that is consistent with the number of display colors obtained by the display color obtaining means.

Regarding claim 11, Reeber et al discloses a computer 103 with operator controls that executes instructions to control the invention (Fig. 1), which reads on a storage medium that stores at least one control process for the image reading means.

Regarding claim 12, Reeber et al discloses sample and hold (S/H) circuits 301, 302, 303 and 304. Four signals corresponding to the four color separations are provided to these sample and hold circuits (col 3, lines 2-5), which reads on a color separating means that chromatically separates the image of the original.

Regarding claim 13, Reeber et al discloses a scanner 100 containing an illuminating drum on which an original is mounted (col 2, lines 29-33), which reads on illumination means for emitting light, the illumination means illuminating the original;

a plurality of sample and hold circuits 301-304 corresponding to color separations and the number of samples correspond to the raster scan rate at which signals are displayed by CRT 211 (col 3, lines 2-11), which reads on a display color obtaining means for obtaining a number of display colors for the monitor screen of the host apparatus;

optics 101 including an illuminating drum on which an original is mounted (col 2, lines 29-33), and signals corresponding to this detected light are provided by line 102 to

Art Unit: 2626

computer 103, which reads on image reading means for photo-electric converting light from the original and outputting an image signal;

a rotating drum on which an original is mounted (col 2, lines 32-34), which reads on a moving means for moving at least one of the original and the image reading means; and

sample and hold (S/H) circuits 301, 302, 303 and 304. Four signals corresponding to the four color separations are provided to these sample and hold circuits. Programmable sampler 305 is programmed with information which controls the sample and hold circuits. In particular, programmable sampler 305 samples the continuous analog signals provided by computer 103. The number of samples corresponds to the raster scan rate at which signals are displayed by CRT 211 (col 3, lines 2-11), which reads on control means for causing the image reading means to execute a conversion operation to the image signals with a number of display colors that is consistent with the number of display colors obtained by the display color obtaining means.

Regarding claims 14-16, Reeber et al teaches the claimed subject matter as discussed in claims 2-4 above.

Claims 17-20 are method claims and are rejected for the same reasons as claims 1-4.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reeber et al (US Patent No. 4,635,108) in view of well-known prior art. As best understood, Reeber et al fails to teach that the original includes a plurality of memory regions, and

Art Unit: 2626

the image reading means converts an image in each of the image memory regions of the original to the image signal. However, it was commonly known in the art that an original can comprise a composition of different types of data such as text, images, graphics, and barcodes, which can be defined in different regions while the scanner can scan and convert each of the regions of the original image. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to consider that the reading means in Reeber et al converts an image in each of the regions in the original since the reading means 100 can scan black/white, color image without any limitation on the type of images to be read.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Reilly et al (US Patent No. 5,083,210) discloses an elimination of contouring on displayed gray level images with the ability to convert a high resolution array of binary pixels representing the scanned image to a lower resolution gray version for displaying on a screen.

b. Preston, Jr. (US Patent No. 4, 777,525) teaches an apparatus and method for a multi-resolution electro-optical imaging, display and storage/retrieval system.

c. Judd (US Patent No. 4,280,143) teaches a scale-changing method and apparatus for converting raster-scanned data received at a first resolution to a second lower resolution.

Art Unit: 2626

d. Wash (US Patent No. 4,974,096) teaches film-to-video information transfer using longitudinal magnetic tracks on the film wherein the tracks contain parameter information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is 703-305-8733. The examiner can normally be reached on 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or Faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to:

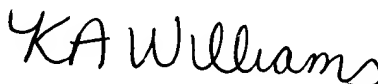
Crystal Park II

2121 Crystal Drive

Arlington, VA

Sixth Floor (Receptionist).

TJL



KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER